

# SPIDERS FROM TAIWAN IV. THE GENUS *EPISINUS* (ARANEAE: THERIDIIDAE)

By

**Hajime YOSHIDA**

7-18, Kagota 2-Chome, Yamagata, Yamagata 990, Japan

## **Synopsis**

YOSHIDA, Hajime (7-18, Kagota 2-Chome, Yamagata, Yamagata 990, Japan): Spiders from Taiwan IV. The genus *Episinus* (Araneae: Theridiidae). *Acta arachnol.*, 31: 73-77 (1983).

*Episinus spiniger* (O. P.-CAMBRIDGE) is recorded for the first time from Taiwan. Three new species of the genus *Episinus*, *E. yoshimurai*, *E. punctisparsus* and *E. bicornutus*, are described from Taiwan and Japan.

The genus *Episinus* has not been recorded from Taiwan except that CHU and OKUMA (1970) and YOSHIDA (1978) reported unnamed species. In this paper, four species of the genus *Episinus* are reported. One of them is recorded for the first time from Taiwan, and the other three species are described as new species. Two new species are also distributed in Japan.

Before going further, I wish to express my hearty thanks to Prof. T. YAGI-NUMA for his continuous guidance and to Mr. M. YOSHIMURA and Mr. N. KIKUYA for offering valuable specimens for this study.

## ***Episinus* LATREILLE**

Carapace oval. Clypeus usually projecting. Eyes on slight tubercles. First leg longest, except *E. bicornutus* (fourth leg longest). Abdomen flat, usually modified with humps or nipples, widest behind middle. Colulus replaced by two setae. Epigynum with distinct openings. A pair of seminal receptacles present. Palpus complex with all sclerites.

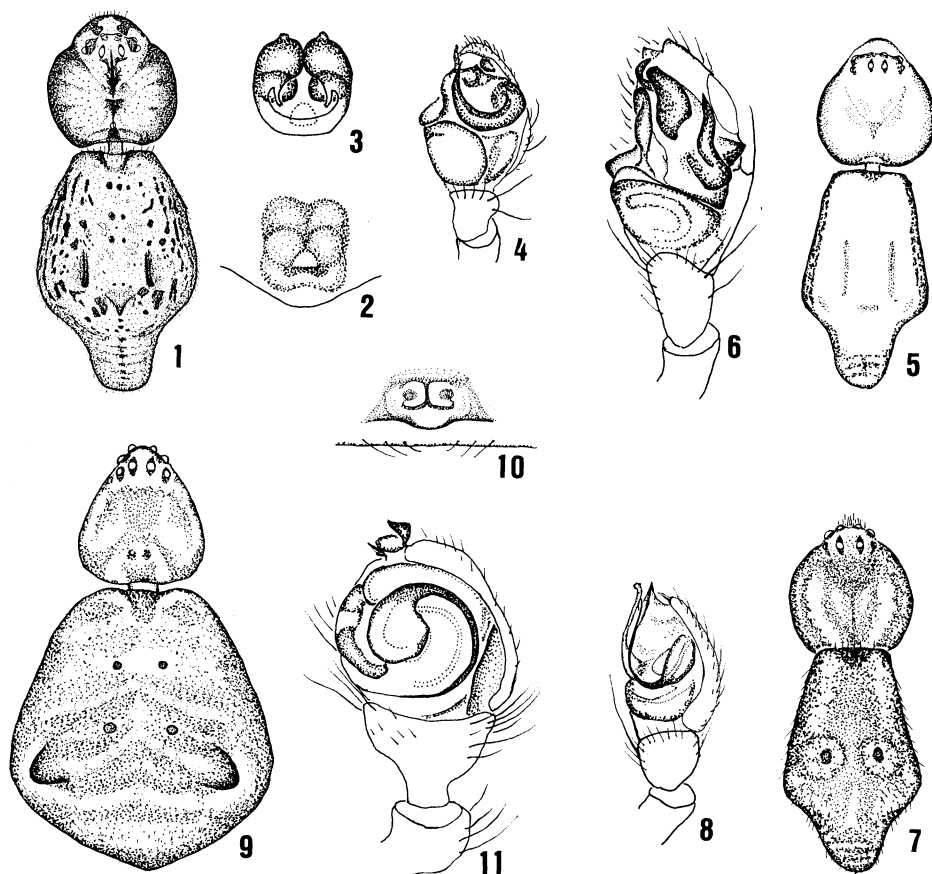
***Episinus spiniger* (O. P.-CAMBRIDGE) n. comb.**

(Figs. 1-4)

*Moneta spinigera* O.P.-CAMBRIDGE, 1870, p. 736, pl. 44, fig. 5.—LEVI & LEVI, 1962, figs. 228-230.

*Episinus* sp.: YOSHIDA, 1978, p. 24, fig. 9.

Material examined: 1♂, Yangmingshan, 3-VII-1977, 2♀, 28-VII-1977, H.



Figs. 1-4. *Episinus spiniger* (O.P.-CAMBRIDGE). 1. Female, dorsal view. 2. Female epigynum, ventral view. 3. Female genitalia, dorsal view. 4. Male palpus, ventral view.

Figs. 5-6. *E. yoshimurai* n. sp. 5. Male, dorsal view. 6. Male palpus, ventral view.

Figs. 7-8. *E. punctisparsus* n. sp. 7. Male, dorsal view. 8. Male palpus, ventral view.

Figs. 9-11. *E. bicornutus* n. sp. 9. Female, dorsal view. 10. Female epigynum, ventral view. 11. Male palpus, ventral view.

YOSHIDA; 6♀, 2♂, Shuishe, 27-III-1979, 5♀, 2♂, 29-III-1979, H. YOSHIDA.

*Distribution*: Taiwan, Sumatra, India, Ceylon, Seychele, Transvaal, East Africa and Gabon.

***Episinus yoshimurai* n. sp.**

(Figs. 5-6)

*Male* (Holotype): Total length 3.16 mm. Carapace length 1.21 mm; width 1.08 mm. Clypeus projecting. Anterior lateral eyes slightly larger than others which are nearly equal in size. Medians four-thirds their diameter apart. Laterals on tubercles, almost touching. Palpus illustrated by Fig. 6: embolus thick and short; tegulum large; paracymbial hook on edge of cymbium. First femur 2.13 mm; patella and tibia 2.08 mm; metatarsus 2.08 mm; tarsus 0.32 mm. Second femur 1.34 mm; fourth 1.66 mm.

Carapace light brown, dusky marginally. Sternum brown, dusky marginally. Legs brown. Abdomen light brown with lateral black stripes and median white pigment; venter gray.

*Female*: Unknown.

*Material examined*: Holotype: ♂, Mt. Alishan, Chia Yi County, Taiwan, 10-VII-1977, M. YOSHIMURA (in the collection of the Arachnological Society of East Asia "ASEA"). Paratypes: 1♂, same data as holotype; 1♂ subadult, Mt. Banna-dake, Ishigaki Is., Okinawa Prefecture, Japan, 11-VII-1976, H. YOSHIDA.

*Distribution*: Japan (Ishigaki Is.) and Taiwan.

*Remarks*: This species is similar to *E. spiniger* but distinguished from it by abdomen without nipple like projection. The specific name is a patronym in honor of Mr. Mamoru YOSHIMURA, Osaka, who collected the holotype.

***Episinus punctisparsus* n. sp.**

(Figs. 7-8)

*Male* (Holotype): Total length 3.24 mm. Carapace length 1.16 mm; width 1.11 mm. Head region projecting. Anterior lateral eyes larger than others (5:3). Anterior medians two-thirds their diameter apart. Posterior medians four-thirds their diameters apart. AME and ALE almost touching. Abdomen with a pair of median, circular depressions which are sclerotized. Palpus illustrated in Fig. 8: embolus thin and long; conductor holds the tip of embolus. First femur 3 mm;

patella and tibia 3.11 mm; metatarsus 3.11 mm; tarsus 0.78 mm. Second femur 1.78 mm; fourth 2.78 mm.

Carapace dark brown with wide marginal dusky stripe. Head region dusky. Abdomen with many blackish brown flecks and white pigmental spots irregularly. Legs yellowish brown with dusky bands.

*Female*: Unknown.

*Material examined*: Holotype: ♂, Mt. Alishan, Chia Yi County, Taiwan, 10-VII-1977, M. YOSHIMURA (ASEA). Paratypes: 1 ♂, same data as holotype; 1 ♂, Yangmingshan, Taiwan, 28-VII-1977, M. YOSHIMURA.

*Distribution*: Taiwan.

*Remarks*: This species is similar to *E. spiniger* and *E. yoshimurai*. Discriminating characters are given in the key.

### ***Episinus bicornutus* n. sp.**

(Figs. 9-11)

*Male* (Holotype): Total length 3.3 mm. Carapace length 1.29 mm; width 1.21 mm. Anterior eyes larger than posterior eyes (9:7). Anterior medians a half their diameter apart. Posterior medians two-thirds their diameter apart. Eye region projecting. Carapace with a distinct median furrow. Abdomen truncated behind, with a pair of horn like projections and four sclerotized spots. Palpus illustrated in Fig 11: embolus is large and coiled around bulb; tegulum small. Fourth leg longest. First femur 1.82 mm; patella and tibia 2.13 mm; metatarsus 1.63 mm; tarsus 0.55 mm. Second femur 1.39 mm; fourth 2 mm.

Carapace dark brown with blackish flecks irregularly. Sternum blackish brown. Abdomen with many black flecks. Legs pale: femora with dark brown band distally; patellae dark brown; tibiae with distal wide dark brown bands.

*Female* (Paratype): Similar to male, but differs as follows: Total length 3.9 mm. Carapace length 1.32 mm; width 1.13 mm. Eyes almost equal in size. Medians three-fourths their diameter apart. Legs dark brown: femora pale basally; third and fourth tibiae with basal pale band; metatarsi with pale band. First femur 1.47 mm; patella and tibia 1.53 mm; metatarsus 1.39 mm; tarsus 0.5 mm. Second femur 1.05 mm; fourth 1.58 mm.

*Material examined*: Holotype: ♂, Nakahanda, Oita, Oita Prefecture, Japan, 8-VI-1981, N. KIKUYA (ASEA). Paratypes: 1 ♀, Yangmingshan, Taiwan, 28-VII-1977, H. YOSHIDA (ASEA); 1 ♀ young, Shuishe, Taiwan, 27-III-1979, H. YOSHIDA; 1 ♀

young, Hsitou, Taiwan, 19-VII-1977, H. YOSHIDA; 2♂, Hotojima, Tsukumi, Oita Prefecture, Japan, 22-VII-1981, N. KIKUYA; 1♀ subadult, Mt. Iwawaki, Osaka Prefecture, Japan, 27-VI-1976, H. YOSHIDA.

*Distribution*: Japan (Honshu and Kyushu) and Taiwan.

*Remarks*: This species is similar to *E. affinis* BÖSENBERG et STRAND, but distinguished from the latter by the shape of epigynum and male palpus.

#### A key to four species of *Episinus* of Taiwan

1. Abdomen slightly longer than wide; fourth leg longest .... *bicornutus* n. sp.
- Abdomen much longer than wide; first leg longest ..... 2
2. Abdomen with a middle nipple like projection.... *spiniger* (O.P.-CAMBRIDGE)
- Abdomen without a nipple like projection..... 3
3. Abdomen with many black flecks and a pair of circular depressions.....  
..... *punctisparsus* n. sp.
- Abdomen without many black flecks and with a pair of longitudinal depressions ..... *yoshimurai* n. sp.

#### 摘 要

吉田 哉 (〒990 山形市竈田 2 丁目 7 番 18 号): 台湾のクモ IV. ヒシガタグモ属。

東南アジアから東アフリカまで広く分布する *Episinus spiniger* (O.P.-CAMBRIDGE) を台湾から初めて記録するとともに、ヒシガタグモ属の 3 新種、*E. yoshimurai*, *E. punctisparsus*, *E. bicornutus* を記載した。*E. yoshimurai* ヒラヒシガタグモ (新称) は石垣島で、*E. bicornutus* ツノヒシガタグモ (新称) は大分県大分市・津久見市と大阪岩湧山でも採集された。

#### References

- CHU, Y.I. & C. OKUMA, 1970. Preliminary survey on the spider-fauna of the paddy fields in Taiwan. *Mushi*, **44**: 65-88.
- LEVI, H.W. & L.R. LEVI, 1962. The genera of the spider family Theridiidae. *Bull. Mus. comp. Zool.*, **127**: 1-71, pls. 1-14.
- PICKARD-CAMBRIDGE, O., 1870. On some new genera and species of Araneidea. *Proc. zool. Soc. London*, 1870: 728-747.
- YAGINUMA, T., 1960. Spiders of Japan in Colour. viii+186+8 pp., 56 pls. Hoikusha, Osaka.
- YOSHIDA, H., 1978. On some Formosan spiders (1). *Atypus*, **71**: 21-28.